In the claims:

Amend claims 1-20 where indicated.

1. (Currently Amended) A magnetic head assembly having ~~an air bearing~~ a head surface ~~(ABS) and~~ comprising:

a write head including:

ferromagnetic first and second pole pieces that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole pieces;

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole pieces:

the first and second pole pieces being connected at their back gap portions;

the pole tip portion of the first pole piece having non-overlapping first and second components wherein the first component forms a portion of the [[ABS]] head surface and the second component is recessed from the [[ABS]] head surface and is magnetically connected to the first component; and

the second component having a width that is less than a width of the first component wherein said widths are parallel to the [[ABS]] head surface and parallel to a major plane of the write gap layer[[.]];

a read head; and

the first pole piece being located between the read head and the second pole piece.

2. (Currently Amended) A magnetic head assembly as claimed in claim 1 further comprising:

the first pole piece having a third component that is recessed from the [[ABS]] head surface and that has a width that is parallel to the [[ABS]] head surface and the major plane of the write gap layer;

the second component interconnecting the first and third components; and

the width of the third component being greater than the width of the second component.

3. (Previously Presented) A magnetic head assembly having an air bearing surface (ABS) and comprising:

a write head including:

ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole piece layers;

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole piece layers;

the first and second pole piece layers being connected at their back gap portions;

the pole tip portion of the first pole piece layer having first and second components wherein the first component forms a portion of the ABS and the second component is recessed from the ABS and is magnetically connected to the first component;

the second component having a width that is less than a width of the first component wherein said widths are parallel to the ABS and parallel to a major plane of the write gap layer;

the first pole piece layer having a third component that is recessed from the ABS and having a width that is parallel to the ABS and the major thin film plane of the write gap layer;

the second component interconnecting the first and third components;

the width of the third component being greater than the width of the second component;

the first pole piece layer having a base layer and a pedestal wherein the pedestal forms a portion of the ABS; and

the pedestal interconnecting the base layer and the first component.

4. (Currently Amended) A magnetic head assembly as claimed in claim 1 further comprising:

[[a]] <u>the</u> read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer; and

the first and second read gap layers being located between the first shield layer and the first pole piece.

5. (Currently Amended) A magnetic head assembly as claimed in claim 4 further comprising:

the first pole piece having a third component that is recessed from the ABS and has a width that is parallel to the [[ABS]] head surface and [[the]] a major ~~planes~~ plane of the write gap layer;

the second component interconnecting the first and third components; and

the width of the third component being greater than the width of the second component.

6. (Previously Presented) A magnetic head assembly having an air bearing surface (ABS) and comprising:

a write head including:

ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole piece layers;

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole piece layers;

the first and second pole piece layers being connected at their back gap portions;

the pole tip portion of the first pole piece layer having first and second components wherein the first component forms a portion of the ABS and the second component is recessed from the ABS and is magnetically connected to the first component;

the second component having a width that is less than a width of the first component wherein said widths are parallel to the ABS and parallel to a major plane of the write gap layer;

the first pole piece layer having a third component that is recessed from the ABS and having a width that is parallel to the ABS and the major thin film plane of the write gap layer;

the second component interconnecting the first and third components;

the width of the third component being greater than the width of the second component;

the first pole piece layer having a base layer and a pedestal wherein the pedestal forms a portion of the ABS; and

the pedestal interconnecting the base layer and the first component.;

a read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer; and

the first and second read gap layers being located between the first shield layer and the first pole piece layer.

7. (Currently Amended) A magnetic disk drive including at least one magnetic head assembly that has ~~an air bearing~~ a head surface [[(ABS)]] and that includes a write head and a read head, comprising:

the write head including:

ferromagnetic first and second pole pieces that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole pieces:

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole pieces:

the first and second pole pieces being connected at their back gap portions;

the pole tip portion of the first pole piece having non-overlapping first and second components wherein the first component forms a portion of the [[ABS]] head surface and the second component is recessed from the [[ABS]] head surface and is magnetically connected to the first component; and

the second component having a width that is less than a width of the first component wherein said widths are parallel to the [[ABS]] head surface and parallel to a major plane of the write gap layer;

the read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer; and

the first and second read gap layers being located between the first shield layer and the first pole piece;

the first pole piece being located between the read head and the second pole piece;

a housing;

a magnetic disk rotatably supported in the housing;

a support mounted in the housing for supporting the magnetic head assembly with said [[ABS]] head surface facing the magnetic disk so that the magnetic head assembly is in a transducing relationship with the magnetic disk;

a spindle motor for rotating the magnetic disk;

an actuator positioning means connected to the support for moving the magnetic head assembly to multiple positions with respect to said magnetic disk; and

a processor connected to the magnetic head assembly, to the spindle motor and to the actuator positioning means for exchanging signals with the magnetic head assembly, for controlling movement of the magnetic disk and for controlling the position of the magnetic head assembly.

8. (Currently Amended) A magnetic disk drive as claimed in claim 7 further comprising:

the first pole piece layer having a third component that is recessed from the [[ABS]] head surface and has a width that is parallel to the [[ABS]] head surface and the major plane of the write gap layer;

the second component interconnecting the first and third components; and

the width of the third component being greater than the width of the second component.

9. (Previously Presented) A magnetic disk drive including at least one magnetic head assembly that has an air bearing surface (ABS) and that includes a write head and a read head, comprising:

the write head including:

ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole piece layers;

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole piece layers;

the first and second pole piece layers being connected at their back gap portions;

the pole tip portion of the first pole piece layer having first and second components wherein the first component forms a portion of the ABS and the second component is recessed from the ABS and is magnetically connected to the first component;

the second component having a width that is less than a width of the first component wherein said widths are parallel to the ABS and parallel to a major thin film plane of the write gap layer;

the read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer;

the first and second read gap layers being located between the first shield layer and the first pole piece layer;

the first pole piece layer having a base layer and a pedestal wherein the pedestal forms a portion of the ABS; and

the pedestal interconnecting the base layer and the first component;

a housing;

a magnetic disk rotatably supported in the housing;

a support mounted in the housing for supporting the magnetic head assembly with said ABS facing the magnetic disk so that the magnetic head assembly is in a transducing relationship with the magnetic disk;

a spindle motor for rotating the magnetic disk;

an actuator positioning means connected to the support for moving the magnetic head assembly to multiple positions with respect to said magnetic disk; and

a processor connected to the magnetic head assembly, to the spindle motor and to the actuator positioning means for exchanging signals with the magnetic head assembly, for controlling movement of the magnetic disk and for controlling the position of the magnetic head assembly.

10. (Original) A magnetic disk drive as claimed in claim 9 further comprising:

the first pole piece layer having a third component that is recessed from the ABS and has a width that is parallel to the ABS and the major thin film planes of the layers of the sensor;

the second component interconnecting the first and third components; and

the width of the third component being greater than the width of the second component.

11. (Currently Amended) A method of making a magnetic head assembly having ~~an air bearing~~ a head surface ~~(ABS) and~~ comprising the steps of:

making a write head including the steps of:

forming ferromagnetic first and second pole pieces that have a yoke portion located between a pole tip portion and a back gap portion;

forming a nonmagnetic write gap layer between the pole tip portions of the first and second pole pieces:

forming an insulation stack with at least one coil layer embedded therein between the yoke portions of the first and second pole pieces:

connecting the first and second pole pieces at their back gap portions;

forming the pole tip portion of the first pole piece with non-overlapping first and second components wherein the first component forms a portion of the [[ABS]] head surface and the second component is recessed from the [[ABS]] head surface and is magnetically connected to the first component; [[and]]

forming the second component with a width that is less than a width of the first component wherein said widths are parallel to the [[ABS] head surface and parallel to a major plane of the write gap layer[[.]]; and

forming a read head with the first pole piece located between the read head and the second pole piece.

12. (Currently Amended) A method of making a magnetic head assembly as claimed in claim 11 further comprising the steps of:

forming the first pole piece layer with a third component that is recessed from the [[ABS]] head surface and with a width that is parallel to the [[ABS]] head surface and the major plane of the write gap layer;

forming the second component interconnecting the first and third components; and

forming the width of the third component greater than the width of the second component.

13. (Previously Presented) A method of making a magnetic head assembly having an air bearing surface (ABS) and comprising the steps of:

making a write head including the steps of:

forming ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

forming a nonmagnetic write gap layer between the pole tip portions of the first and second pole piece layers;

forming an insulation stack with at least one coil layer embedded therein between the yoke portions of the first and second pole piece layers;

connecting the first and second pole piece layers at their back gap portions;

forming the pole tip portion of the first pole piece layer with first and second components wherein the first component forms a portion of the ABS and the second component is recessed from the ABS and is magnetically connected to the first component; and

forming the second component with a width that is less than a width of the first component wherein said widths are parallel to the ABS and parallel to a major thin film plane of the write gap layer;

forming the first pole piece layer with a third component that is recessed from the ABS and with a width that is parallel to the ABS and the major thin film plane of the write gap layer;

forming the second component interconnecting the first and third components;

forming the width of the third component greater than the width of the second component;

forming the first pole piece layer with a base layer and a pedestal wherein the pedestal forms a portion of the ABS; and

forming the pedestal interconnecting the base layer and the first component.

14. (Currently Amended) A method of making a magnetic head assembly as claimed in claim 11 further comprising the steps of:

making [[a]] the read head including the steps of:

forming a read sensor;

forming nonmagnetic electrically nonconductive first and second read gap layers with the read sensor located between the first and second read gap layers; and

forming a ferromagnetic first shield layer with the first and second read gap layers located between the first shield layer and the first pole piece.

15. (Currently Amended) A method of making a magnetic head assembly as claimed in claim 14 further comprising the steps of:

forming the first pole piece with a third component that is recessed from the [[ABS]] head surface and with a width that is parallel to the [[ABS]] head surface and the major plane of the write gap layer;

forming the second component interconnecting the first and third components; and

forming the width of the third component greater than the width of the second component.

16. (Previously Presented) A method of making a magnetic head assembly having an air bearing surface (ABS) and comprising the steps of:

making a write head including the steps of:

forming ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

forming a nonmagnetic write gap layer between the pole tip portions of the first and second pole piece layers;

forming an insulation stack with at least one coil layer embedded therein between the yoke portions of the first and second pole piece layers;

connecting the first and second pole piece layers at their back gap portions;

forming the pole tip portion of the first pole piece layer with first and second components wherein the first component forms a portion of the ABS and the second component is recessed from the ABS and is magnetically connected to the first component; and

forming the second component with a width that is less than a width of the first component wherein said widths are parallel to the ABS and parallel to a major thin film plane of the write gap layer;

forming the first pole piece layer with a third component that is recessed from the ABS and with a width that is parallel to the ABS and the major thin film plane of the write gap layer;

forming the second component interconnecting the first and third components;

forming the width of the third component greater than the width of the second component;

forming the first pole piece layer with a base layer and a pedestal wherein the pedestal forms a portion of the ABS; and

forming the pedestal interconnecting the base layer and the first component~~.~~;

making a read head including the steps of:

forming a read sensor;

forming nonmagnetic electrically nonconductive first and second read gap layers with the read sensor located between the first and second read gap layers; and

forming a ferromagnetic first shield layer with the first and second read gap layers located between the first shield layer and the first pole piece layer.

17. (Currently Amended) A magnetic head assembly having a head surface and comprising:

a write head including:

ferromagnetic first and second pole pieces that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between said pole tip portions;

an insulation stack with at least one coil layer embedded therein located between said yoke portions;

the first and second pole pieces being connected at their back gap portions; and

the pole tip portion having a reduced cross-section portion wherein the reduced cross-section portion is located entirely within a region which is recessed from said head surface[[.]]~~;~~

a read head; and

the first pole piece being located between the read head and the second pole piece.

18. (Currently Amended) A magnetic head assembly as claimed in claim 17 further comprising:

[[a]] the read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer; and

the first and second read gap layers being located between the first shield layer and the first pole piece.

19. (Currently Amended) A magnetic disk drive including at least one magnetic head assembly that has a head surface and that includes a write head and a read head, comprising:

[[a]] the write head including:

ferromagnetic first and second pole pieces that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between said pole tip portions;

an insulation stack with at least one coil layer embedded therein located between said yoke portions;

the first and second pole pieces being connected at their back gap portions; and

the pole tip portion having a reduced cross-section portion wherein the reduced cross-section portion is located entirely within a region which is recessed from said head surface;

the read head including:

a read sensor;

nonmagnetic electrically nonconductive first and second read gap layers;

the read sensor being located between the first and second read gap layers;

a ferromagnetic first shield layer; and

the first and second read gap layers being located between the first shield layer and the first pole piece layer;

the first pole piece being located between the read head and the second pole piece;

a housing;

a magnetic medium supported in the housing;

a support mounted in the housing for supporting the magnetic head assembly with said head surface facing the magnetic medium so that the magnetic head assembly is in a transducing relationship with the magnetic medium; and

a processor connected to the magnetic head assembly for exchanging signals with the magnetic head assembly.

20. (Currently Amended) A method of making a magnetic head assembly having ~~an air bearing~~ a head surface [[(ABS)]] and comprising the steps of:

making a write head including the steps of:

forming ferromagnetic first and second pole pieces with a yoke portion located between a pole tip portion and a back gap portion;

forming a nonmagnetic write gap layer between said pole tip portions;

forming an insulation stack with at least one coil layer embedded therein between said yoke portions;

connecting the first and second pole pieces at their back gap portions; and

forming the pole tip portion with a reduced cross-section portion wherein the reduced cross-section portion is located entirely within a region which is recessed from said head surface[[.]]; and

forming a read head with the first pole piece located between the read head and the second pole piece.

Add new claims 21-24.

21. (New) A magnetic head assembly that has a head surface comprising:

a write head including:

ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

a nonmagnetic write gap layer located between the pole tip portions of the first and second pole piece layers;

an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole piece layers;

the first and second pole piece layers being connected at their back gap portions;

the pole tip portion of the first pole piece layer having first and second components wherein the first component forms a portion of the head surface and the second component is recessed from the head surface and is magnetically connected to the first component;

the second component having a width that is less than a width of the first component wherein said widths are parallel to the head surface and parallel to a major thin film plane of the write gap layer;

the first pole piece layer having a base layer and a pedestal wherein the pedestal forms a portion of the head surface and is located between the head surface and the insulation stack; and

the pedestal interconnecting the base layer and the first component.

22. (New) A magnetic head assembly as claimed in claim 21 further comprising:

a read head; and

the first pole piece layer being located between the read head and the second pole piece layer.

23. (New) A method of making a magnetic head assembly that has a head surface comprising the steps of:

making a write head including the steps of:

forming ferromagnetic first and second pole piece layers that have a yoke portion located between a pole tip portion and a back gap portion;

forming a nonmagnetic write gap layer between the pole tip portions of the first and second pole piece layers;

forming an insulation stack with at least one coil layer embedded therein located between the yoke portions of the first and second pole piece layers;

connecting the first and second pole piece layers at their back gap portions;

forming the pole tip portion of the first pole piece layer with first and second components wherein the first component forms a portion of the head surface and the second component is recessed from the head surface and is magnetically connected to the first component;

forming the second component with a width that is less than a width of the first component wherein said widths are parallel to the head surface and parallel to a major thin film plane of the write gap layer;

forming the first pole piece layer with a base layer and a pedestal wherein the pedestal forms a portion of the head surface and is located between the head surface and the insulation stack; and

forming the pedestal to interconnect the base layer and the first component.

24. (New) A method as claimed in claim 23 further comprising the step of:

forming a read head with the first pole piece layer located between the read head and the second pole piece layer.